

Art Unit 185

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2-7 are rejected under 35 U.S.C. § 103 as being unpatentable over Sudoh et al. in view of Suggs et al. for essentially the same reasons as set forth in the Official Action mailed 2/13/91.

Applicants arguments have been considered carefully but are not deemed persuasive. Specifically, applicants argue that since no teaching of the amino acid sequence for hBNP was available, one of ordinary skill would not have succeeded in isolating the claimed hBNP DNA sequence using the amino acid sequence of pBNP of Sudoh to construct oligo probes by the method of Suggs.

Applicants reason this is so since it would not be clear what portion of the amino acid sequence of pBNP should be used in construction of oligo probes. Sudoh provide in fig. 2 on page 80 a comparison of the amino acid sequence of both pBNP and hANP showing non-homologous regions, particularly amino acid residues ~20-26, which could be used to construct a probe which following the method of Suggs would allow one of ordinary skill and with a reasonable expectation of success of isolating the hBNP from a human cardiac cDNA library.

Applicants also argue that a probe based on the amino acid sequence of Sudoh would more likely hybridize and isolate alpha-hANP. Considering that Sudoh teach on page 80, left col., last

line of first paragraph, that pBNP is produced ~3 X higher than that of pANP in pig brain and that human brain cDNA libraries are well known in the art prior to and at the time the instant application was filed, one of ordinary skill would have been motivated to use the method of Suggs in addition to the amino acid sequence for pBNP of Sudoh for probe construction, to isolate hBNP from a human brain cDNA library with the expectation that human brain produces an excess of BNP as does the taxonomically related pig. Therefore, the likelihood of the probe hybridizing with an ANP is further reduced and increases the expectation of success in isolating the hBNP sequence.

Applicants fail to respond to the alternative method of isolating the hBNP as set forth on page 4, lines 11 to the end of the paragraph, in which the method of Sudoh is used to isolate substantially pure hBNP for amino acid sequencing from human brain tissue and this sequence is used to construct probes following Suggs to isolate the related hBNP cDNA from a human brain or cardiac library. Given that pigs and humans are taxonomically closely related mammals and given the teachings of Sudoh (in particular see the first paragraph after Table 1) that ANP, and therefore BNP follows, are found across mammalia, there is a reasonable expectation of success in of finding and isolating from human brain hBNP as Sudoh isolated BNP from porcine brain.

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to Examiner LeGuyader at telephone number (703) 308-1083.

John L. Le GUYADER
July 29, 1991

RICHARD A. SCHWARTZ
SUPERVISORY PATENT EXAMINER
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